

Left Atrial Appendage Occlusion (LAAO) Procedure



**Information for patients,
families, and friends**

February 2026 V2.0 AODA



WRHN
@ Queen's Blvd.
Waterloo Regional
Health Network

Contents:

What is left atrial appendage occlusion procedure (LAAO)? 3

The implant and its purpose:..... 4

Preparing for the procedure: 5

Medication instructions before LAAO :..... 7

What will happen at the hospital?..... 11

How is the procedure done? 11

Radiation facts:..... 13

What happens after my procedure? 13

Going home:..... 15

Access site and self-care:..... 16

Useful resources:..... 17

How should I contact you?..... 17



What is left atrial appendage occlusion procedure (LAAO)?

Left atrial appendage (LAA) occlusion is a minimally invasive medical procedure. It is used to prevent strokes in people who have heart condition called Atrial Fibrillation (AF) and cannot take long-term blood thinners or have high bleeding risk. AF causes the heart to beat in an irregular and often fast way, which can lead to many health problems including strokes.

In people with AF, most blood clots in the heart form in the LAA. Normally, the heart squeezes blood from the upper chambers into the lower ones. But with AF, the heartbeat is too irregular, and blood can get stuck in the LAA. When blood sits still, it can form clots. If a clot travels to the brain, it can cause a stroke.

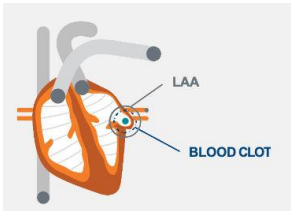


Figure 1: Blood clot found in Left Atrial Appendage
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During the procedure, doctors close off a small pouch in the heart called the left atrial appendage (LAA). This pouch is found in the upper left chamber of the heart, called Left Atrium (LA). Sealing LAA helps lower the risk of stroke and may mean you no longer need blood-thinning medicine.

The implant and its purpose:

There are many LAAO devices available worldwide. At WRHN the heart team mostly uses **Watchman device**.

The Watchman is a small, soft implant about the size of a quarter. It is made from light, compact materials and is shaped like a tiny parachute.

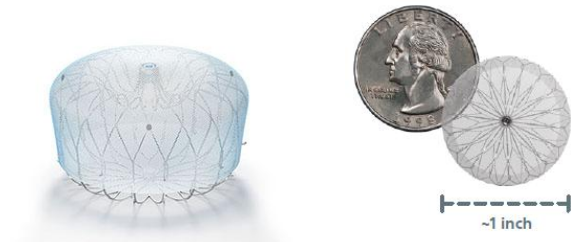


Figure 2: The Watchman device
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Device is implanted to seal off the left atrial appendage (LAA) from the rest of the heart.

Doctors place the device in the heart using a thin tube called a catheter. Over time, heart tissue grows over it, trapping any clots so they do not enter the bloodstream.



Figure 3: Blood clot in LAA and Watchmen device sealing off the LAA.
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Preparing for the procedure:

Weeks before your procedure

You will meet with LAAO team cardiologist and nurse practitioner in the Structural Heart clinic. This clinic is located on the main floor. You can ask one of our volunteers for directions.



You will be assessed by the team, and more testing will be booked for you.

These tests may include:

- Special echocardiogram called transesophageal echo (TEE)
- CT scan

The Pre-surgical Clinic appointment

The goal of the pre-surgical clinic is to help prepare you for your upcoming LAAO procedure. The clinic is located off the main lobby next to the gift shop.



Your appointment will last 2-3 hours. You will receive a lot of information about your hospital stay and recovery.

It will include meeting an anesthesiologist and nurses. Your medications and LAAO care plan will be reviewed with you in detail.

You will have blood work and electrocardiogram (ECG) done during this visit.



On the day of your clinic visit, please:

- Eat and drink as usual. You may bring lunch with you if your appointment is before noon or eat lunch before you arrive for your afternoon appointment.
- Take your usual medicines.
- Wear loose-fitting, comfortable clothes, wear socks instead of pantyhose.

Please bring the following items with you to the clinic:

- ☐ Completed forms and questionnaires.
- ☐ Health card
- ☐ This booklet (LAAO patient education booklet)
- ☐ All of your medications in their original containers. This includes any herbals, naturopathic, or vitamin products and inhalers.
- ☐ If English is not your first language, please bring someone who can translate for you.

Commented [GR1]: Patients also need to bring this booklet

Medication instructions before LAAO :

Nurse will review all of your medications with you during your clinic visit. It is important to take all of your regular medicines unless otherwise instructed below.



Medicines to stop When to stop:
before LAAO:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Medicines to take the morning of LAAO (with
a sip of water only):



The night before your procedure



Take a shower or a bath the night before or morning of your procedure. Please do not use any scented products.

Make sure you have a responsible adult to drive you home from the hospital. Give their contact number to the recovery room nurses so your discharge timing can be arranged. You may go home about 6 hours after your procedure. Some patients may stay the night.

A responsible adult should stay with you the first night unless you are staying in the hospital.

The day of your procedure



You may eat and drink until 12:00 midnight the night before your procedure.

After midnight, you cannot have anything to eat or drink (this includes sucking candies and chewing gum).

Take your regular medications in the morning unless you were told not to.

Please bring all prescription medications in their original containers or blister pack(s) to the hospital.



Wear loose, comfy clothes. DO NOT bring valuables (e.g., jewelry).

 What to bring:

- ☐ Name and number of person driving you home
- ☐ Your medications in original packaging
- ☐ Something to read (book or magazine)
- ☐ Your dentures
- ☐ Your glasses/contacts with case
- ☐ Your hearing aids
- ☐ Your Ontario Health Card

 Arrival time:

Come to hospital at the time given to you by the coordinator. **Remember that your procedure time is approximate only.** Your procedure time may change if there are emergencies. Nurses will keep you and your family updated.



What will happen at the hospital?

When you arrive at the hospital, go to the registration desk on the first floor. It is next to the gift shop.

After you register, you will go to the Pre/Post Heart Investigation Unit (PHIU) on the second floor. If you are not sure where to go, ask a volunteer for help.

On arrival in PHIU, you will be assessed by the nurse. During assessment, information about your medications, medical history and allergies will be reviewed.

The doctor will talk to you about the procedure and answer your questions.

You will be given time to go to the bathroom before you go into the procedure room.

How is the procedure done?

LAO procedure is done in specifically designed cardiac hybrid room.

Once in the room, you will lie down on a narrow table under x-ray camera. This camera will move around you during the procedure.



You will be given general anesthetic or procedural sedation.

Your heart rhythm and vital signs will be monitored during the entire procedure.



Your groin area will be cleaned with a cold antiseptic solution. You will then be covered with sterile drapes.

Your doctor will inject local anesthetic into your groin to 'freeze' the area. This is done so you do not feel pain when you wake up.

A short tube called a 'sheath' will be inserted into a vein in your groin. It will help guide other equipment, like the Watchman device, to your heart.

The doctor will also use long, thin tubes called 'catheters' to inject clear dye into your heart. This dye can be easily seen on x-ray.

The whole procedure usually takes about 1-2 hours.

Radiation facts:

You may get small amount of radiation during your LAAO procedure.



This is safe, and the benefits of the procedure are greater than the risks.

Our MRT (Medical Radiation Technologists) will keep track of how much radiation you get.

What happens after my procedure?

After your procedure is done, your doctor will take out the 'sheath' from your groin. They may press on the area for a few minutes to stop any bleeding. Special stitches will help keep gentle pressure on the groin site.

You will then go to special recovery area called the Post Anesthetic Care Unit (PACU) for closer monitoring. You will stay in PACU for about an hour.

You will then go back to Pre/Post Heart Investigation Unit (PHIU).

Our PHIU nurses will take care of you after your procedure. Many assessments will be done to make sure you are recovering well.



You must stay in bed with your legs straight for about 2 hours. For comfort, the head of your bed can be raised a little.

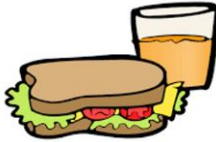


Do Not:

- Bend the leg used for the procedure. This can cause bleeding.
- Cross your legs. This can block circulation to your feet.

Your PHIU nurses will let you know when it is safe to get up. They will assist you with slowly standing up.

You will get a light snack and a drink. Drinking fluids is important because it helps remove the dye from your body.



Visitors may be allowed for a brief visit after your first recovery time. This depends on hospital rules and your condition.

Plan to stay in PHIU for at least 6 hours after your procedure. Some people will be discharged home the same day. Others will stay overnight.



Going home:

Before you go home, PHIU nurses will give you education and care instructions.



Go to Emergency Department or call 911, if:

- You have changes in your sight or speech
- You have severe pain, numbness, coolness, or weakness in your leg
- You have sudden uncontrolled bleeding, swelling or severe pain at the puncture site
- You start feeling racing heart (palpitations)
- You start experiencing shortness of breath
- You get discomfort when breathing while lying flat



Call your family doctor right away if:

- You develop a fever of 38.0°C or higher
- You develop a rash
- Your puncture site becomes swollen, red, warm to touch, more tender; or if it begins draining pus (yellow-green discharge)
- You migraine headaches get worse, if you already have them



Access site and self-care:

Have a responsible adult with you for 24 hours.

Remove your groin dressing 48 hours after your procedure. Keep area dry and clean.

Shower, do not soak the area for 3 days.

Support your groin by applying pressure to it for 24 hours. Your nurse will show you how.

Do not strain when having a bowel movement.

Avoid strenuous walking for 24 hours

No lifting anything over 10 pounds for 7 days.

No driving for 48 hours.

If you work at a job where you usually sit, you can go back to work in 2 days. If you do physical labour, ask your doctor.

For 6 months you will need to take **antibiotics** before any dental cleaning or procedures. This is to prevent infection on the new device.

You may be instructed to take blood thinner medications. They will stop clots forming on your new device. Your doctor and nurse will let you know.

You will get more instructions before you go home. Your PHIU nurse will go over everything in detail.

You may want to write important things to remember here, or questions you may have:

Useful resources:

To learn more about the Watchman device you can visit Boston Scientific website at watchman.com

How should I contact you?

WRHN Regional Cardiac Care Coordinator

Phone: 519-749-6578 ext. 1992

PHIU

Phone: 519-749-6578 ext. 6750

